APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/668,145	09/25/2000	Theodore Rappaport		1614

			EXAMINER
30743	7590	10/07/2004	DONAGHUE, LARRY D

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ART UNIT	PAPER NUMBER
2154	

DATE MAILED: 10/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _14 June 2004_.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-127_ is/are pending in the application.
   4a) Of the above claim(s) _1-11, 40-56, 59-74 and 103-127_ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) _12-39,57,58 and 103-127_ is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All   b) ☐ Some * c) ☐ None of:
       1. ☐ Certified copies of the priority documents have been received.
       2. ☐ Certified copies of the priority documents have been received in Application No. _____.
       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _06/10/03, 08/19/03_.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1.   Claims 1-127 are presented for examination.

2.   Applicant's election without traverse of claims 12-39, 57-58 and 75-102 in the reply filed on 14 June 2004 is

acknowledged.

3.   Claims 1-11, 40-56, 59-74, and 103-127 have withdrawn from further consideration pursuant to 37 CFR

1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was

made **without** traverse in the reply filed on 14 June 2004.

4.   The information disclosure statement filed 11/12/03 fails to comply with the provisions of 37 CFR 1.97, 1.98

and MPEP § 609 because failed to supply a copy of the non-patent literature of pages 11-15. It has been placed in

the application file, but the information referred to therein has not been considered as to the merits. Applicant is

advised that the date of any re-submission of any item of information contained in this information disclosure

statement or the submission of any missing element(s) will be the date of submission for purposes of determining

compliance with the requirements based on the time of filing the statement, including all certification requirements for

statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the

rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public
use or on sale in this country, more than one year prior to the date of application for patent in the United
States.
(e) the invention was described in (1) an application for patent, published under section 122(b), by
another filed in the United States before the invention by the applicant for patent or (2) a patent
granted on an application for patent by another filed in the United States before the invention by the
applicant for patent, except that an international application filed under the treaty defined in section
351(a) shall have the effects for purposes of this subsection of an application filed in the United States
only if the international application designated the United States and was published under Article 21(2)
of such treaty in the English language.

6.   Claims 12-19, 29-34, 57-58, 75-82 and 92-97 are rejected under 35 U.S.C. 102(b) as being anticipated by

Skidmore (A Comprehensive In-Building and Microcellular Wireless Communication System Design Tool).

        Skidmore taught the invention (claim 12, 29, 75, and 92) as claimed including generating a computerized

model of a communications network within a physical space in which said communications network is or will be

deployed, said computerized model identifying locations within said physical space of components used in said

communications network, said computerized model having modeled attributes for each of said components;

positioning data collection measurement devices within said physical space; identifying locations within said

computerized model which correspond to said measurement devices; measuring field measurement data with said data collection measurement devices; and predicting a performance metric for said communications network based on said field measurement data, said modeled attributes for said components, and said locations of said components within said computerized model (chapters 1-5).

As to claim 13, 30, 76, and 93, Skidmore taught the computerized model is three dimensional (Section 3.2.2).

As to claims 14, 31, 77, and 94 , Skidmore taught the data collection measurement devices used in said positioning step are portable (section 5.2.1).

Claims 15, 32, 78 and 95 are rejected as it is an equivalent apparatus for performing the same step as in claims 14, 31, 76 and 93.

As to claim 16, 33, 79 and 96 Skidmore taught the performance metric predicted in said predicting step is selected from the group consisting of throughput, error rates, packet latency, packet jitter, symbol jitter, quality of service, security, coverage area, bandwidth, bit error rate, packet error rate, frame error rate, dropped packet rate, queuing delay, round trip time, capacity, signal level, interference level, bandwidth delay product, handoff delay time, signal-to interface ratio, signal-to-noise ratio, physical equipment price, and cost information (Chapter 4).

As to claim 17 and 82 Skidmore taught step of measuring is performed manually (5.2.1.2).

Claims 18 and 83 are rejected as it is an equivalent means for performing the same step as in claims 17 and 82.

As to claims 19, 34, 82, and 97 Skidmore taught the step of storing said field measurement data (section 5.22).

Claims 57-58 fail to teach or define above or beyond claims 12-19, 29-34,75-82 and 92-97

7.   Claims 29, 34- 39, and 92,97- 102 are rejected under 35 U.S.C. 102(e) as being anticipated by Skidmore et al. (6,442,507)

The applied reference has a common inventors with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Skidmore et al. taught a computerized model which shows a communications network within a physical space in which said communications network is or will be deployed, said computerized model identifying locations within said physical space of components used in said communications network, said computerized model having modeled attributes for each of said components; data collection measurement devices positioned within said physical space, said data collection measurement devices being represented within said computerized model at locations that correspond to said data collection measurement devices, said data collection measurement devices measuring field measurement data for said physical space; and means for predicting a performance metric for said communications network based on said field measurement data, said modeled attributes for said components, and said locations of said components within said computerized model (col. 2, line 25-60, col. 3, line 13-40).

As to claims 34, and 97 Skidmore et al. taught the step of storing said field measurement data (col. 8, lines 30-36).

As to claims 35, and 98 Skidmore et al. taught said computerized model is stored on at least one server (col. 8, lines 30-36).

As to claims 36, and 99 Skidmore et al. taught said computerized model is stored on a plurality of servers, said plurality of servers can communicate with each other (col. 8, lines 30-43).

As to claims 37, and 100 Skidmore et al. taught said plurality of servers have a hierarchical relationship to one another in said system (col. 8, lines 30-43).

As to claims 38, and 101 Skidmore et al. at least one portable client device, said at least one portable client device can communicate with said at least one server (col. 8, lines 30-43).

As to claims 39, and 102 Skidmore et al. said system includes a plurality of portable client devices (col. 8, lines 30-43).

8.   Claims 12, 20-28 and 75, 83-91 are rejected under 35 U.S.C. 102(e) as being anticipated by Rappaport et al. 6,625,454

Rappaport et al. taught the invention (claim 12, and 92) as claimed including generating a computerized model of a communications network within a physical space in which said communications network is or will be deployed, said computerized model identifying locations within said physical space of components used in said communications network, said computerized model having modeled attributes for each of said components; positioning data collection measurement devices within said physical space; identifying locations within said computerized model which correspond to said measurement devices; measuring field measurement data with said data collection measurement devices; and predicting a performance metric for said communications network based on said field measurement data, said modeled attributes for said components, and said locations of said components within said computerized model (figures 5-7, and corresponding disclosure).

As to claims 20 and 83, Rappaport et al. taught the step of updating said computerized model generated in said generating step (col. 9, line 4 – col. 10, line 23).

As to claims 21 and 84, Rappaport et al. taught said step of updating includes the steps of: specifying components from a plurality of different modeled components which are to be used in said communications network, said modeled components including descriptions and attributes of a specific component; and specifying locations within said physical space for a plurality of different components in said computerized model (col. 9, line 4 – col. 10, line 23)..

As to claims 22 and 85, Rappaport et al. taught said step of updating further includes the step of specifying an orientation for at least one component specified in said first specifying step at said location specified in said second specifying step (col. 9, line 4 – col. 10, line 23).

As to claims 23 and 86, Rappaport et al. taught computerized model in said generating step identifies orientations of said components at said locations within said physical space and said predicting step utilizes said orientations (col. 9, line 4 – col. 10, line 23).

As to claims 24 and 87, Rappaport et al. taught said computerized model generated in said generating step includes objects which create noise or interference, said noise or interference being an attribute of said object which is factored in said predicting step(col. 9, line 4 – col. 10, line 23).

As to claims 25 and 88, Rappaport et al. taught the performance metric predicted in said predicting step is predicted in a forward direction in said communication network (col. 12, lines 18-42).

As to claims 26 and 89, Rappaport et al. taught the performance metric predicted in said predicting step is predicted in a reverse direction in said communication network (col. 12, lines 18-42) .

As to claims 27 and 90, Rappaport et al. taught the step of specifying data transfer protocol, and wherein said predicting step uses a specified data transfer protocol as a factor in predicting said performance metric (col. 14, lines 32-63).

As to claims 28 and 91, Rappaport et al. taught the step of specifying a network loading for said communications network, and wherein said predicting step uses a specified network loading in predicting said performance metric (col. 14, lines 32-63).

9.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rappaport et al.   6,499,006

Rappaport et al.   6,493,679

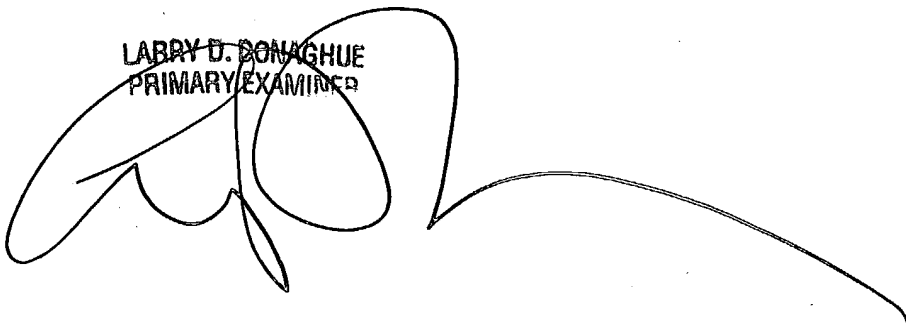Rappaport et al.   6,317,599

10.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Larry D Donaghue whose telephone number is 703-305-9675. The examiner can normally be reached on M-F 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on 703-305-8498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LARRY D. DONAGHUE
PRIMARY EXAMINER